

### REMARKS

The Final Rejection of June 7, 2006, has been carefully reviewed and this response addresses the concerns stated in the Final Rejection and puts the remaining claims in condition for allowance or, in the alternative, in better form for appeal.

#### I. STATUS OF THE CLAIMS

Claims 1-19, 21-25, 28, and 30-31 are currently pending in the application.

Claim 20, 26, 27, and 29 have previously been cancelled.

Claim 31 has been amended to correct punctuation.

Claims 1-5, 8, 9, 11, 13, 15, 16, 18, and 22-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Petrovich, United States Patent Number 6,101,483, issued on August 8, 2000 (Petrovich) in view of Treyz et al., United States Patent Number 6,587, 835, filed on February 9, 2000, issued on July 1, 2003 (Treyz). Applicant respectfully points out that Treyz issued 1½ years after the filing date of Applicant's application, January 4, 2002. Applicant respectfully reserves the right to swear behind Treyz under 37 C.F.R. § 1.131.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Petrovich in view of Treyz as applied to claim 4, and in further view of Ruppert et al., United States Patent Number 5,424,524, issued on June 13, 1995 (Ruppert).

Claims 12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Petrovich in view of Treyz as applied to claim 1 and further in view of WO 01/20526, priority date September 15, 1999, published on March 22, 2001 (WO '526). Applicant respectfully points out that WO '526 was published within a year of the filing date of Applicant's application, January 4, 2002. Applicant respectfully reserves the right to swear behind WO '526 under 37 C.F.R. § 1.131.

Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Petrovich in view of Treyz as applied to claim 4, and in further view of Shaw, United States Patent Number

6,568,596, filed on October 2, 2000, issued on May 27, 2003 (Shaw). Applicant respectfully points out that Shaw issued almost 1½ years after the filing date of Applicant's application, January 4, 2002. Applicant respectfully reserves the right to swear behind Shaw under 37 C.F.R. § 1.131.

Claims 10 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Petrovich in view of Treyz as applied to claim 1, and in further view of Kawan, United States Patent Number 6,102,049, issued on January 4, 2000 (Kawan).

Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Petrovich in view of WO '526 and Ruppert.

Claims 21 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Petrovich in view of Kawan.

Claim 30 is rejected under 35 U.S.C. § 103 as being unpatentable over Petrovich in view of Treyz and Klughart, United States Patent Number 5,025,486, issued on June 18, 1991 (Klughart).

Claim 31 is rejected under 35 U.S.C. § 103 as being unpatentable over Petrovich in view of Treyz, and in further view of Ginter, United States Patent Number 5,915,019, issued on June 22, 1999 (Ginter).

## II. REJECTIONS UNDER 35 U.S.C. § 103(a)

On pages 2-10, paragraphs 1-23, the Office Action has rejected claims 1-4, 8, 9, 11, 13, 15, 16, 18, and 22-25 under 35 U.S.C. §103(a) as being unpatentable over Petrovich in view of Treyz. Applicants respectfully point out that, although paragraph 2 in the Office Action states that claim 5 is unpatentable over Petrovich in view of Treyz, the rejection for claim 5 is found in paragraph 24 of the Office Action.

With respect to claims 1-4, 8, 9, 11, 13, 15, 16, 18, and 22-25, rejected in the Office Action paragraphs 2-23, it is submitted that Petrovich and Treyz cannot be combined because the proposed modification of adding Treyz to Petrovich would render Petrovich unsatisfactory for its

intended purpose. Petrovich states a system in which a single user can create multiple shopping lists that are managed by a host computer connected to a shopping list database (Petrovich, Abstract, col. 3, lines 4-6). The handheld device of Petrovich provides bar code data to the host computer which creates and manages shopping lists for various merchants and provides the shopping lists to the handheld device when appropriate (Petrovich, col. 9, lines 8-11). In Treyz, on the contrary, the shopping list is managed on the handheld device (Treyz, col. 2, lines 41-45), and several users can contribute to the shopping list, which is merchant-specific (Treyz, col. 14, lines 12-18). If Treyz were combined with Petrovich, Petrovich would be rendered unsatisfactory for its intended purpose because integrity in shopping lists would likely be lost as multiple users were modifying a single shopping list at a merchant-related server as in Treyz, while simultaneously a single user was modifying multiple shopping lists associated with multiple merchants maintained in a shopping list database as in Petrovich. Petrovich's single user-multiple merchant system with its associated single user identifying indicia (Petrovich, col. 2, lines 54-55) would be rendered unsatisfactory for its intended purpose of providing a single user with enhanced security access to multiple shopping lists by the addition of Treyz's multiple user-single database system with no database security mechanism or integrity mechanism disclosed whatsoever because the addition of Treyz would introduce security and integrity problems to the shopping list database of Petrovich. For at least this reason, combining Treyz with Petrovich would render Petrovich unsatisfactory for its intended purpose, and thus it is submitted that the combination is invalid.

With respect to independent claim 1, rejected in Office Action paragraphs 3-4, it is submitted that Petrovich and Treyz do not make obvious Applicants' claimed secure memory because (1) Petrovich's security consists of providing an identifying indicia such as a handheld device's identification code, and optionally a personal identification number, to the host computer to verify database access, and (2) Treyz states that shopping lists are password-protected. As Applicants have discussed in detail in previous Office Action responses and affidavits under 37 C.F.R. § 1.132, secure memory, a term that is well-understood in the art, examples of the implementation of which are described in the specification, is memory that is modified so that if the password process is bypassed or the identifying indicia are falsified, the

memory is still not accessible. It is submitted that since neither Petrovich nor Treyz discloses or suggests such a capability, Applicants' claim 1 cannot be made obvious by the combination of Petrovich and Treyz.

With respect to dependent claim 2, rejected in the Office Action paragraphs 5-6, it is submitted that Applicants' claimed purchasing aid logistics appliance comprising a plurality of antennas capable of non-interfering and secure communications is not made obvious by the combination of Petrovich and Treyz because (1) Petrovich's portable terminal 40 includes a single antenna 52, Petrovich's antenna 54 is associated with wireless multi-access point 18 (Petrovich's FIG. 1), not Petrovich's portable terminal 40, and (2) Treyz's sole references to antennas in Treyz's handheld computing device simply state that wireless communications circuitry may include one or more antennas (Treyz, col. 15, lines 26-28). Nowhere do either Petrovich or Treyz disclose or suggest Applicants' claimed non-interfering and secure communications. The Office Action states in paragraph 47 that "there is at least a minimal degree of non-interference from the Petrovich's system in that it will not affect operation of electronic required to run system". Applicants respectfully point out that Petrovich's antennas 52 and 54 are included in different devices (Petrovich's portable terminal 40 and Petrovich's multi-access point 18), and are stated to be compatible with each other, whereas Applicants' claim a purchasing aid logistics appliance *itself* having multiple antennas. The Office Action states in paragraph 47 that "there is at least a minimal level of security, in that is would take specialized equipment to attempt to 'steal' the data (i.e. it is secure against theft from individuals without equipment)". Applicants respectfully point out that neither Petrovich nor Treyz disclose or suggest secure communications as is well-known in the art (see, for example, [http://en.wikipedia.org/wiki/Secure\\_communication](http://en.wikipedia.org/wiki/Secure_communication)). For these reasons, it is submitted that Petrovich and Treyz cannot make obvious Applicants' claim 2.

With respect to dependent claim 3, rejected in the Office Action paragraph 7, it is submitted that Applicants' claimed merchant web site downloads product information to said internet port in response to a signal by the personal computer for product information is not made obvious by the combination of Petrovich and Treyz because (1) Treyz states direct interfaces between the merchant and the various devices, and (2) as the Office Action states, Petrovich fails

to disclose means for inputting to be an internet port. Applicants claim a signal sent by the personal computer to the merchant website, where the merchant website downloads product information to the purchasing aid logistics appliance in response to the signal sent by the personal computer. Nowhere does Treyz describe a signal sent by a personal computer that results in product information being downloaded to a handheld device because Treyz simply states that communications can take place between elements of the system, but not in any particular sequence or in response to any particular signals. In paragraph 48, the Office Action states that "because there is a communication, a signal must be present". Applicants respectfully point out that Applicants claim not simply a signal, but a response to a particular signal, which neither Petrovich, nor Treyz, nor their combination, make obvious.

With respect to dependent claim 16, rejected in the Office Action paragraph 14, it is submitted that Applicants' claimed means for outputting controls signal strength is not made obvious by the combination of Petrovich and Treyz because (1) Treyz simply states that any suitable radio frequencies can be *used* (Treyz, col. 13, lines 16-17) but does not disclose or suggest *control* of signal strength, and (2) the Office Action states that Petrovich fails to disclose the means for outputting to control signal strength. Treyz states that a local communications path between handheld computing device 12 and a wireless transmitter/receiver associated with a store, merchant, mall, or other establishment or entity may operate at 2.4 GHz, in other words, that the signal strength is a characteristic of the communication type, but nowhere does Treyz state that the handheld computing device *controls* signal strength. In Treyz, signal strength is pre-determined for the handheld device, not controlled by the handheld device.

With respect to independent claim 18, rejected in the Office Action paragraphs 15-17, it is submitted that Applicants' claimed uploading the shopping list to a merchant computer from the purchasing aid logistics appliance through the first wireless channel while traversing a doorway into a merchant facility, the first wireless channel directly connecting the merchant computer with the purchasing aid logistics appliance, and receiving product data into the purchasing aid logistics appliance from the merchant computer through the first wireless channel while traversing a doorway are not made obvious by Petrovich and Treyz because (1) Petrovich's wireless capability is confined to providing the handheld device with optimal shopping path

corrections while in the merchant facility (Petrovich, col. 10, lines 39-50), and (2) nowhere does Treyz disclose or suggest Applicants' claimed uploading the shopping list to a merchant computer or receiving product data into the purchasing aid logistics appliance while traversing a doorway. Because Petrovich maintains the shopping list on a host computer, Petrovich downloads information with respect to the shopping list from the host computer to the handheld device while the user is *in* the store, but Petrovich does not rely on the user to perform Applicants' claimed step of uploading the shopping list from the handheld computer to the merchant computer while traversing a doorway, nor does Petrovich receive product data into the handheld device while traversing a doorway. Neither does Treyz disclose or suggest Applicants' claimed invention because Treyz only states various ways that data can be exchanged while the user is in the merchant's facility. For these reasons, it is submitted that Petrovich and Treyz cannot make obvious Applicants' claim 18.

With respect to independent claim 22, rejected in the Office Action paragraphs 18-19, it is submitted that Applicants' claimed uploading the shopping list to a merchant computer from the purchasing aid logistics appliance through the first wireless channel while traversing a doorway into a merchant facility, the first wireless channel directly connecting the merchant computer with the purchasing aid logistics appliance, and receiving product data into the purchasing aid logistics appliance from the merchant computer through the first wireless channel while traversing a doorway are not made obvious by Petrovich and Treyz for the reasons stated with respect to independent claim 18. It is further submitted that Applicants' claimed releasing the first wireless channel while traversing a doorway out of the merchant facility is not made obvious by Petrovich and Treyz because (1) neither Petrovich nor Treyz disclose or suggest when a wireless signal is released, and (2) neither Petrovich nor Treyz disclose or suggest a relationship between a wireless channel and a merchant facility doorway, as Applicants have claimed. Petrovich does not disclose or suggest releasing a wireless channel while traversing a doorway out of the merchant facility because Petrovich simply offers the possibility of an optional initialization procedure of swiping a bar code at the merchant's facility (Petrovich, col. 5, lines 17-22). Treyz provides no details whatsoever concerning the releasing of wireless signals or any special procedures that occur when traversing a doorway out of a merchant facility. Further, the Office Action provides no citation in either Petrovich or Treyz against Applicants'

claimed method step. For these reasons, Applicants' independent claim 22 is not made obvious by Petrovich and Treyz.

With respect to dependent claim 23, rejected in the Office Action paragraph 20, it is submitted that Applicants' claimed identifying the product data with a merchant according to the bar coded advertisement is not made obvious by Petrovich and Treyz because neither Petrovich nor Treyz disclose or suggest bar coded advertisement. Petrovich does not make obvious Applicants' claimed step of identifying the product data with a merchant according to a bar coded advertisement because Petrovich states a card with a bar code that is merchant-specific, not a bar coded advertisement. Treyz creates no relationship whatsoever among product data and merchants, and further does not disclose or suggest any use of bar coded advertisements but simply states electronically transmitted and displayed advertisements unrelated to bar codes. For these reasons, it is submitted that Applicants' claim 23 is not made obvious by Petrovich and Treyz.

With respect to dependent claim 24, rejected in the Office Action paragraph 21, it is submitted that Applicants' claimed synchronizing appliance financial transaction logs with financial institution financial transaction logs is not made obvious by Petrovich and Treyz because the term "synchronization" as is commonly understood in computer terminology means that both the purchasing aid logistics appliance and the financial institution financial transaction logs will contain the same data, such as, for example, when an address book in a personal data assistant is synchronized with an address book in a personal computer. In that case, as in the case of financial transaction logs, changes could have taken place between synchronizations at both the purchasing aid logistics appliance and the financial institution with respect to the financial logs. The Office Action states in paragraph 22 that when a product is purchased, the financial information relating to products being purchased is synchronized with a financial institution log so that the correct amount is charged to a financial account, but there is no disclosure or suggestion in the Office Action or Treyz about the actual process of synchronization which would involve *exchange* of information between the financial institution and the handheld device, not simply providing information about charges to the financial institution. It is submitted that, because the Office Action states in paragraph 21 that Petrovich fails to disclose synchronizing appliance financial transaction logs with financial institution transaction logs, and

because there is no synchronization taking place between Treyz's handheld device and a financial institution, Petrovich and Treyz do not make obvious Applicants' claim 24.

On page 10, paragraph 24-25, the Office Action has rejected dependent claim 5 under 35 U.S.C. §103(a) as being unpatentable over Petrovich in view of Treyz, and in further view of Ruppert. It is submitted that Applicants' dependent claim 5 is not made obvious by Petrovich, Treyz, and Ruppert because to combine Ruppert with Petrovich would render Petrovich unsatisfactory for its original purpose. Ruppert's personal bar code scanning device manages a shopping list, whereas the shopping list in Petrovich is managed by a host computer. Shopping list management by two computers is, at best, redundant, and most likely could cause a lack of integrity in the shopping list because there is no single arbiter of shopping list change in a system in which Petrovich and Ruppert are combined. For this reason, it is submitted that Petrovich, Treyz, and Ruppert cannot make obvious Applicants' claim 5.

On page 11, paragraphs 26-27, the Office Action has rejected dependent claims 12-14 under 35 U.S.C. §103(a) as being unpatentable over Petrovich in view of Treyz, and in further view of WO '526. It is submitted that combining WO '526 with Petrovich would render Petrovich unsatisfactory for its intended purpose because whereas the management of the shopping list in Petrovich takes place on a host computer outside of the handheld device, WO '526 implies throughout the specification that data management occurs inside the handheld device even though the data themselves might be stored elsewhere (WO' 526, page 11, lines 1-2). It is further submitted that Petrovich, Treyz, and WO '526 do not disclose or suggest Applicants' claimed first signal that comprises a personal identification number that is capable of being a basis for unlocking secure memory because (1) WO '526 states a *customer* identification number to be used during the checkout procedure, not a *personal* identification number; Applicants respectfully point out that the meaning of these terms is well-known in the art, and is not the meaning that the Office Action states in paragraph 49, but instead a customer identification number is used as a public identifier whereas a personal identification number is chosen by a user generally to protect financial records (see typical examples of use of these terms in, for example, [www.ncsl.org/programs/lis/privacy/ssn2005.htm](http://www.ncsl.org/programs/lis/privacy/ssn2005.htm)), and (2) none of Petrovich, Treyz, or WO '526 disclose or suggest that any number at all is used to unlock secure memory.



For these reasons, it is submitted that Petrovich, Treyz and WO '526 cannot make obvious Applicants' dependent claims 12 and 14.

On pages 11-12, paragraphs 28-30, the Office Action has rejected dependent claims 6 and 7 under 35 U.S.C. §103(a) as being unpatentable over Petrovich in view of Treyz, in further view of Shaw. It is submitted that Petrovich, Treyz, and Shaw do not disclose or suggest Applicants' claimed purchasing aid logistics appliance comprising a central processor that includes executable software having a display browser capable of creating a web page from display executable code because the combination of Petrovich, Treyz, and Shaw does not disclose converting bar code signals into a web page to be displayed on the display of a handheld device. The Office Action states that neither Petrovich nor Treyz disclose the central processor to include software that converts the bar code signals into a web page to be displayed on the display, and in Shaw, the computer used to import the bar code data transmits the XML document to a web server archive which stores the document in element storage software for publication on a web site (Shaw, FIG. 1). Shaw requires a computer to input and decode bar codes and a computer to receive the decoded bar codes and provide them for publication on a website. In Shaw, any eventual display on a handheld device would occur because the handheld device was in communication with the web server where the decoded bar codes were stored. Therefore, there is no suggestion or motivation in any of Petrovich, Treyz, or Shaw to receive and decode of bar codes and display the result without an intervening web server. For this reason, it is submitted that Petrovich, Treyz, and Shaw do not make obvious Applicants' dependent claims 6 and 7.

On pages 12-13, paragraphs 31-32, the Office Action has rejected dependent claims 10 and 17 under 35 U.S.C. §103(a) as being unpatentable over Petrovich in view of Treyz, and in further view of Kawan. With respect to dependent claim 10, it is submitted that Petrovich, Treyz, and Kawan do not disclose or suggest Applicants' claimed purchasing aid logistics appliance having secure memory that includes encryption circuitry because (1) the Office Action states that Petrovich and Treyz do not disclose encryption circuitry, and (2) there is no suggestion or motivation in any of Petrovich, Treyz, or Kawan to provide secure memory including encryption *in a purchasing aid logistics appliance*. For these reasons, it is submitted that Petrovich, Treyz, and Kawan cannot make obvious Applicants' dependent claim 10.

With respect to dependent claim 17, it is submitted that Petrovich, Treyz, and Kawan do not disclose or suggest Applicants' claimed purchasing aid logistics appliance having a central processor with executable code to compare smart card information to data stored in a smart card because none of Petrovich, Treyz, or Kawan disclose or suggest modifying a handheld device to include Applicants' claimed executable software to compare smart card information to data stored in a smart card. The Office Action states that neither Petrovich nor Treyz disclose a smart card storing a user personal identification number. Kawan does not disclose or suggest a handheld device that performs comparisons between smart card information and smart card data because Kawan's smart card data are validated by a host computer at a financial institution or at a merchant terminal. Further, there is no suggestion in Kawan to validate smart card data on a handheld device because the purpose of Kawan is to provide a *smart card*, not a handheld device, that can carry out financial transactions. Still further, to combine Kawan with Petrovich would render Petrovich unsatisfactory for its intended purpose because Kawan's system would be provide redundant and perhaps conflicting capabilities because Kawan's smart card stores some of the same data that could potentially be stored in Petrovich's or Treyz's handheld devices.

On pages 13-14, paragraphs 33-35, the Office Action has rejected independent claim 19 under 35 U.S.C. §103(a) as being unpatentable over Petrovich in view of WO '526, and in further view of Ruppert. It is submitted that, as stated above, Ruppert cannot be combined with Petrovich because the combination would render Petrovich unsatisfactory for its intended purpose (see claim 5 above). For this reason, it is submitted that Petrovich, WO '526, and Ruppert do not make obvious Applicants' independent claim 19.

On pages 14-15, paragraphs 36-38, the Office Action has rejected independent claims 21 and 28 under 35 U.S.C. §103(a) as being unpatentable over Treyz in view of Kawan. It is submitted that Treyz cannot be combined with Kawan because the combination would render Treyz unsatisfactory for its intended purpose. In Kawan, the smart card is used to interface directly with financial institutions to enable financial transactions (Kawan, col. 4, lines 27-30), whereas any interface in Treyz is accomplished through the handheld device of Treyz. The simultaneous operation of Kawan and Treyz would cause integrity loss in the user's financial

records that could be simultaneously accessed and changed. For this reason, Treyz and Kawan, do not make obvious Applicants' independent claims 21 and 28.

On page 16-17, paragraphs 39-41, the Office Action has rejected independent claim 30 under 35 U.S.C. §103(a) as being unpatentable over Petrovich in view of Treyz, and in further view of Klughart. It is submitted that Klughart cannot be combined with Petrovich because the combination would render Petrovich unsatisfactory for its intended purpose. In Klughart, operations control of the portable data module, including on/off control is managed by a transmitter. If Klughart and Petrovich were combined, and, for example, Petrovich were performing a download of bar codes to the host computer, an unexpected power down of the handheld device of Petrovich by the transmitter of Klughart could compromise the integrity of the data transfer. For this reason, Petrovich, Treyz, and Klughart cannot make obvious Applicants' claim 30.

On page 17, paragraph 42, the Office Action has rejected independent claim 31 under 35 U.S.C. §103(a) as being unpatentable over Petrovich in view of Treyz, in further view of Ginter. It is submitted that Petrovich, Treyz, and Ginter do not disclose or suggest any of the elements of Applicants' claim 31 because (1) the Office Action states that neither Petrovich nor Treyz discloses secure memory having Applicants' claimed features, and (2) Ginter does not disclose or suggest Applicants' claimed misaligning the address of a memory location, requiring Applicants' claimed address decoder and means for accessing the memory location by the address decoder. Further, (2), Ginter does not disclose or suggest an address decoder upon which an amount of memory address misalignment depends because Ginter discloses a key system in which *data*, not *memory*, are encrypted, and in which data are modified in place according to an encryption algorithm. In Applicants' system, on the contrary, the contents of the memory location that is misaligned could remain intact, but when accessing a particular memory location, the contents would appear to be changed because the memory addresses would be misaligned. For example, if memory location 1000 contained a jump instruction (e.g. 1010) and memory location 1002 contained a compare instruction (e.g. 1011), if the random number in the address decoder were 2, the instruction accessed when the CPU fetched memory location 1002 would be a jump instruction, not a compare instruction. Thus, any reference to that memory location would not

location would not execute as expected, and the desired security would be accomplished. In Ginter's system, on the other hand, addresses 1000 and 1002 would contain changed values after encryption, but the relationship between the new and old values would depend upon the encryption algorithm used, not Applicants' claimed memory address realignment. For these reasons, it is submitted that Petrovich, Treyz, and Ginter do not make obvious Applicants' claim 31.

Applicants assert that dependent claims 4, 8, 9, 11, 13, 15, and 25 are patentable at least because of their dependence upon patentable independent claim 1.

### III. CONCLUSION

It is submitted that claims 1-19, 21-25, 28, and 30-31 are now in condition for allowance.

Applicants respectfully request that the Examiner withdraw all rejections and objections and find claims 1-19, 21-25, 28, and 30-31 allowable for the reasons stated above, and further respectfully request that a timely Notice of Allowance be issued in this case.

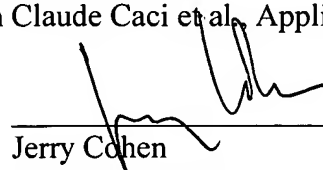
Although no additional fees are anticipated, Applicants herein authorize the Commissioner for Patents to charge any additional fees or credit overpayment to Deposit Account No. 03-2410, Order No. 12078-129.

The following information is presented in the event that a call may be deemed desirable by the Examiner: JERRY COHEN (617) 345-3000.

Respectfully submitted,  
Joseph Claude Caci et al. Applicants

Date: August 7, 2006

By:

  
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